



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,135	09/12/2003	Michael C. Van Zandt	99-452-LL	9089

7590

03/09/2005

Steven J. Sarussi  
McDonnell Boehnen Hulbert & Berghoff  
32nd Floor  
300 S. Wacker Drive  
Chicago, IL 60606

EXAMINER

ANDERSON, REBECCA L

ART UNIT

PAPER NUMBER

1626

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,135

Applicant(s)

VAN ZANDT, MICHAEL C.

Examiner

Rebecca L. Anderson

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,18-30,39,42,46,49 and 50 is/are pending in the application.
- 4a) Of the above claim(s) 46,49 and 50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,19,21-25,27-30 and 42 is/are rejected.
- 7) ☒ Claim(s) 1, 3, 18-30, 39 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

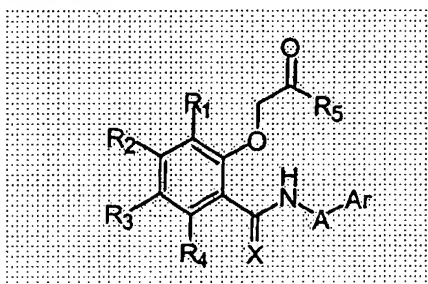
Claims 1, 3, 18-30, 39, 42, 46, 49 and 50 are currently pending in the instant application. Claims 46, 49 and 50 are withdrawn from consideration as being for non-elected subject matter. Claims 1, 3, 18-30 and 42 are objected to for containing non-elected subject matter. Claim 39 is objected to as being dependent upon a rejected base claim. Claims 1, 3, 19, 21-25, 27-30 and 42 are rejected.

### *Election/Restrictions*

Applicant's election of Group I, claims 1, 3, 18, 19-30, 39 and 42 and the further election of the compound of Example 55, page 108 in the reply filed on 13 December 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Therefore, as stated on pages 3 and 4 of the restriction requirement, **the elected invention for search and examination is:**

The products of the formula



Wherein

**A** is C1-C4 alkylene group optionally substituted with C1-C2 alkyl or mono- or disubstituted with halogen, preferably fluoro or chloro;

**X** is as found in claim 1;

**R1, R2, R3 and R4** are each independently

Art Unit: 1626

hydrogen, halogen, or nitro, or an alkyl group of 1-6 carbon atoms optionally substituted with one or more halogens, OR, SR, S(O)R, S(O)<sub>2</sub>R, C(O)N(R)<sub>2</sub>, or N(R)<sub>2</sub>, wherein each R is independently hydrogen, an alkyl group of 1-6 carbon atoms (which may be substituted with one or more halogens) or benzyl, where the phenyl portion is optionally substituted with up to three groups independently selected from halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, amino, and mono- or di(C<sub>1</sub>-C<sub>6</sub>)alkylamino; phenoxy where the phenyl portion is optionally substituted with up to three groups independently selected from halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, amino, and mono- or di(C<sub>1</sub>-C<sub>6</sub>)alkylamino; or phenyl which is optionally substituted with up to three groups independently

selected from halogen, C1-C6 alkyl, C1-C6 alkoxy, amino, and mono-or di(C1-C6)alkylamino;

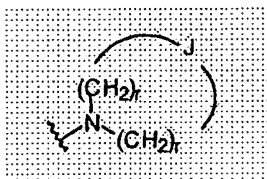
**R5** is as found in claim 1; and

**Ar** represents benzothiazolyl, which is optionally substituted with up to five groups.

The remaining subject matter of claims 1, 3, 18-30 and 42 that is not drawn to the above elected invention and the subject matter of claims 46, 49 and 50 stands withdrawn under 37 CFR 1.142(b) as being for non-elected subject matter. The remaining compounds which are not within the elected invention, which are independent and distinct from the elected invention and do not have unity with the elected compound and are therefore withdrawn by means of a restriction requirement within the claims are,

Art Unit: 1626

for example, the compounds wherein A is a covalent bond; R1, R2, R3 and R4 are heteroaryl or a group of the formula



; and Ar is benzoxazolyl, isoquinolyl, benzothioophenyl, benzofuranyl, benzimidazolyl, oxadiazolyl or indolyl.

The above mentioned withdrawn compounds which are withdrawn from consideration as being for nonelected subject matter differ materially in structure and composition from the compounds of the elected invention. The withdrawn compounds differ from those of the elected invention, such as by furanyl, thienyl, morpholinyl, piperidinyl, piperazinyl, and oxazole, etc. which are chemically recognized to differ in structure and function. This recognized chemical diversity of the compounds can be seen by the various classification of these compounds in the U.S. classification system, i.e. class 549 subclass (200)+ furanyl, class 549 subclass (1)+ thienyl,, class 548 subclass (215)+ oxazole, class 544 subclass 106(+) morpholinyl, class 544 subclass 358(+) piperazinyl, etc. Therefore, again, the compounds which are withdrawn from consideration as being for non-elected subject matter differ materially in structure and composition and have been restricted properly as a reference which anticipated but the elected subject matter would not even render obvious the non-elected subject matter.

These withdrawn compounds are independent and distinct from the elected invention and do not have unity with the species elected and are therefor withdrawn by means of a restriction requirement within the claims.

The requirement is still deemed proper.

### ***Claim Objections***

Claims 1, 3, 18-30 and 42 are objected to as containing non-elected subject matter. Claims 1, 3, 18-30 and 42 presented drawn solely to the elected invention identified above as: The elected invention for search and examination, and free of the following 35 USC 112 2<sup>nd</sup> paragraph rejections would appear allowable over the prior art of record.

Claim 39 is objected to as being dependent upon a rejected base claim, but would appear allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 1 states that the group Ar, which in the elected invention is benzothiazolyl, is optionally substituted with up to five groups. This renders the claims indefinite because it is unclear from the instant claims what the five groups are and where these five groups are located on the benzothiazolyl, which as shown, for example, in claim 18, only has four positions available for substitution and each position can only have one substituent since the carbon atoms to which the substituents are attached already have 3 bonds. Therefore, the

Art Unit: 1626

benzothiazolyl cannot be substituted with up to five groups, but only four groups. This rejection can be overcome, for example, by deleting "up to five groups" from claim 1 and inserting in its place the values for the groups R13-R16 as found in claim 18.

Claims 19 and 21-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 19 defines the values of R13, R14, R15 and R16, in combination, as for example, one of bromo, cyano or nitro, one or two of fluoro, chloro, hydroxyl, etc. Claim 22 further limits claim 21 wherein R13, R14, R15 and R16 independently represent nitro, one two, or three of fluoro. Claim 21 limits A to be methylene, methylene substituted with a methyl group, or ethylene. Claim 25 limits the value of R15 as hydrogen. Therefore, the claims are indefinite since claim 19 does not appear to include hydrogen as one of the possible values of R13, R14, R15, and R16 and dependent claim 25 does include hydrogen; and claim 19 appears to limit R13-R16 to contain only one nitro in the group, wherein Claim 22 seems to independently from one another, allow any or all of R14-R16 to be nitro. Furthermore, claim 22 seems to read on R13 as being 3 fluorine atoms at once when R13 can only have one substituent at a time. Also, if R13 is not read as being up to three fluorine atoms, it is still unclear how R13, R14, R15 and R16 can independently of one another have to have 3 of them as fluorine, since this is not independent. Finally, in claim 21, methylene substituted with a methyl group is ethylene, so it is unclear what substituents are being claimed for A since these variables are identical. The use of the phrase "in combination" in addition to the term "independently" and the various commas and

Art Unit: 1626

numbers of atoms (i.e. one or two or three of fluoro therefore renders the claims indefinite because it is unclear what substituent values are being claimed for R13, R14, R15 and R16 and what the different combinations of variables are for R13-R16. This rejection can be overcome, for example, by amending the claims to specifically state, as in claim 25, the specific values of R13, R14, R15 and R16. For example, R13 is fluorine, R14 is fluorine, R15 is hydrogen and R16 is fluorine.

Claims 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27 recites the limitation "wherein R8-R12 represent...." in the compound of claim 26. There is insufficient antecedent basis for this limitation in the claim since there appear to be no variables R8-R12 in claim 26 or claim 18 from which it depends and therefore, the definitions of variables R8-R12 cannot be further limited since there are no variables R8-R12.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday 5:30AM to 2:00PM.


If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699.


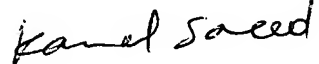


Art Unit: 1626

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
\_\_\_\_\_  
Rebecca Anderson  
Patent Examiner  
Art Unit 1626, Group 1620  
Technology Center 1600  
3/2/05

   
\_\_\_\_\_  
KAMAL A. SAEED, PH.D.  
PRIMARY EXAMINER  
Joseph K. McKane  
Supervisory Patent Examiner  
Art Unit 1626, Group 1620  
Technology Center 1600